p1028b: Combine Like Terms (v8)

Example

Combine like terms.
$$-8x^2 + 6x^2 + 3 - 3x^2 + 1 + 8x - 9 + 9x - 7x + 5x$$

Answer

Combine the quadratic terms.

$$-8x^2 + 6x^2 - 3x^2 \equiv -5x^2$$

Combine the linear terms.

$$8x + 9x - 7x + 5x \equiv 15x$$

Combine the constant terms.

$$3 + 1 - 9 \equiv -5$$

The final result:

$$-5x^2 + 15x - 5$$

Question 1

Combine like terms.
$$-8x^2 + 3x^2 - 7x + 6 - 1 + 8x + 9x + 2 - 6x^2 + 5x$$

$$-11x^2 + 15x + 7$$

Question 2

Combine like terms.

$$3x^2 - 6x - x - 9 + 8 + 2x^2 + 6 - 7x^2 - 5x + 9x$$

$$-2x^2 - 3x + 5$$

Question 3

Combine like terms.

$$4x + 3x^2 - 3 + 5 - 6x^2 + 7 - 5x + x^2 + 8x - 8x^2$$

$$-10x^2 + 7x + 9$$

Question 4

Combine like terms.

$$5 + 6 + 8x - 9 - 8x^2 - 2x + 2x^2 + 4x^2 - 5x + 9x^2$$

$$7x^2 + x + 2$$